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ABSTRACT

This exploration of ethical conflicts created by information technology and their impacts on teachers, scholars, and students begins by discussing the issue of fairness or ethics, with emphasis on what is fair or ethical in obtaining access to electronic information. Technological barriers involved in obtaining access to desired electronic information are then discussed, including the skill of the computer user and the costs of annual membership fees for belonging to national and international computer networks. The nature and type of information currently available in electronic form in academic settings are described--e.g., curriculum descriptions, course syllabi, reading lists, texts of speeches, manuscripts for review and comment, and entire journals--and the possibility of the federal government's making available much of its information in electronic form only is noted. The significance of restricting access to electronic information is also addressed, including the impact on students who cannot afford to buy their own computers and the difficulties faced by faculty researchers. The paper concludes by addressing what can be done to alleviate some of the ethical problems involved in limited access to electronic information, and by advocating solutions coordinated at the local, state, and national levels. (13 references) (SD)

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Accessing Electronic Information:

A Question of Ethics

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U.S. DEPARTMENT OF EDUCATION
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In the early 1980's Dr. Vernon Gant postulated that the microcomputer had the power to extend the concept of the haves and the have nots in today's society. His concern included the impact of the computer, or lack of computer facilities, on the Third world. He also addressed the problem of communicating with the third world and thus even increasing the problems of intercultural communication and information exchange. At the time of the presentation I thought Dr. Gant had a quaint point of view but nothing that I had to Worry about. You see, I had a TRS-80 Radio Shack micro computer, with 48K of memory, at the office. At home I had a similar machine, albeit with a cassette drive, and an Apple II + with an Epson MX-80 with Graphtrax. I had a word processing package and I knew how to program in both Radio Shack and Applesoft BASIC. By the end of 1983 I had made no less than six regional and national presentations on the topic and role of the computer in communication. In short, I was on the inside and any idea of being a computer have not was not about to keep me awake at night.

The time is now May of 1989 and I still have the TRS-80-, I have upgraded it to two disks, but it is loaned out to a graduate student for word processing. The Apple II + has been replaced with an Apple IIe. I have added a Leading Edge Model D, and IBM clone, and a NEC MultiSpeed laptop computer. However, there are two things I haven't done. I haven't purchased a modem and I haven't changed my job as a professor of Communication at Eastern New Mexico University in Portales, New Mexico. The result of what I haven't done or changed has given me cause to not sleep nearly as well.

You see, my lack of a modem in combination with my geographical location is on the verge of making me a have not in today's information society. As a have not I get short changed in the job market, access to public data bases, the recent work and ideas of colleagues, both in research and teaching, my own research activities, and oh yes, my ability to inform my students of the recent developments in the field. At first I thought the answer to my problem was as simple as the purchase of a modem for about $100.00 at my local computer outlet. However, then I found out I had no economical way to get connected to the rest of the world. The situation was frustrating and it just wasn't fair.

This paper will first address the issue of what is fair or ethical in general and what is fair or ethical in obtaining access to electronic information in particular. The second section of the paper will address the technological barriers involved in obtaining access to the desired electronic information. The third section of the paper involves the nature and type of information currently available in electronic form. The forth section will discuss the significance of restricting access to electronic information. The paper will conclude with a discussion of what can be done to alleviate some of the ethical problems involved in the limited access to electronic information.

The concept of ethics involves some sense of what is right and

appropriate behavior in a given situation. Davis (1900) asserts the concept of ethics is more than a sense of right but a science of human nature. Specifically he states, "Presupposing and involving more or less knowledge of others, it assumes a basis (in this case science), develops a system, and elaborates principles and rules for the conduct of men individually and collectively. In view of its basis, Ethics is the science of rights" (p.36). Granting a relationship between the ethics and right it is obvious and necessary to explore the method by which a standard, definition, or knowledge of what is good or right is achieved. Ethical theories can be classified under any one of the following four divisions.

Authoritarian ethics is obtained form the prescriptions of an established group or organization. Intuitional ethics is basied on an individual's own view of what is right. Empirical ethics are based on an interpretation of the consequences of observed behaviors from which one can determine what is right. The fourth standard is the rational approach. A rational theory which, due to its internal consistency and agreement with know relevant facts, is considered reasonable. (Patterson, 1949, pp. 67-68) Empirical ethics in combination with the rational approach will serve as the basis for ascertaining the ethical dimensions of limited access to electronic information. The combination permits an interpretation of a technological problem based on observed behavior which is consistent with the know facts of a situation. For the purposes of this paper the combination allows for the study of how the storage, access, and use of electronic information (i.e. the empirical ethic) facilitates or inhibits the work of the teacher, the researcher, or the student (i.e. the rational ethic).

The availability of information, regardless of form, is an ethical issue. Barnsley (1972) addresses the significance of knowledge as it relates to the concept of culture. He asserts that knowledge of a culture is derived from common-sense experiences and articulated world views. The knowledge from the articulated world view is part "simple empirical information, as opposed to generalized belief... Yet it is evident that any understanding of modern society must include reference to the exponential growth of knowledge within it, and the kind of informed society that this is producing" (p.100). Barnsley's point is ethics is related to the availability of information and the treatment of the topic to which the information is relevant. He concludes, "Other implications of the differential distribution of knowledge will be apparent; the point here is merely that this topic is highly relevant to a sociology of culture, and thereby to a sociology of ethics" (Barnsley, 1972, p. 101).

Communication teachers, scholars, and students should be aware of the implications of Barnsley's latter observation. When we are denied the awareness of the existence of information, the access to information, or the use of information we have increased the probability that our interpretations, evaluations, and decisions may be in error. Therefore, any policy or procedure which limits

the growth or exchange of information has serious ethical implications. In this case the implications are in terms of teaching, researching, or applying the knowledge in any or all aspects of communication.

With the discussion of the ethics of information exchange completed it is appropriate to discuss how communication scholars may be denied access to relevant information and related knowledge. Information is stored in electronic data bases or files. The data bases may be purchased and stored within the microcomputer, the computer mainframe of your own institution, or the computer of a host institution such as "Comserve" which is available at Rensselear Polytechnic Institute in Troy, New York.

To avail yourself of electronic information within your own PC all you need to do is be aware of the existence to the data file, have a PC with sufficient memory to handle the data base, have the skill and knowledge to run the PC and manipulate the data file, and the money to purchase the data file. To the extent you do not possess the appropriate PC, skills and knowledge, or the necessary funding you may be a have not in our discipline. As a result you are denied access to the data which is the same as being treated unethically.

Typically, the institutional mainframe computer is accessible either through a terminal connected directly to the mainframe or through a computer network which is established and maintained by the computer center of your organization. The accessibility of the data is again a function of your skills, the equipment, purchase price of the data base, with the added problems of a cooperative computer center, time available at the terminal, and the existence of a functioning in-house computer network. The absence of any of the above prerequisites and you may be on the outside looking in.

Gaining access to information in a data file housed at another institution involves the same problems mentioned above. However, there is another layer of problems and costs. The additional layer involves the annual membership fee for belonging to a national or international computer network such as BITNET. The annual fee for BITNET is between $750 and $8,000 depending on the annual budget range of the institution (BITNET Criteria, 1988, p. 2). There is an additional annual fee for the lease of "a 9600 baud, 4-wire leased line with D1 conditioning which must be installed between your node and the BITNET node to which you will connect...Current cost estimates place the monthly expense of such a line at $2 - $4 per mile (with some monthly minimum charge)" (BITNET Procedures, 1988, p.2). Finally, your institution must purchase or formulate and maintain software for the interface between the two modems and their respective computer systems.

As an example the cost at my institution would be an annual membership fee of $1,000, a line lease fee of approximately $5,000, and an estimated operation fee of $1,000. At a time when institutional budgets are shrinking the outlook for such an

expenditure at my institution is minimal. However, should you be interested in additional information regarding BITNET call (609) 520-3377.

The next area of discussion involves the kinds of information currently or potentially stored in electronic data files at institutions like Rensselaer Polytecnic. Rensselaer's database is called Comserve and contains materials in such areas as teaching, research, announcements, curriculum descriptions, electronic questionnaires, and a catch all category of other (Stephen and Harrison, 1987). The material contained in the files include but are not limited to course descriptions, syllabi, computer programs (CAI), reading lists, text reviews, research scales, texts of speeches, coding manuals announcements of meetings, calls for papers, departmental descriptions, questionnaires on most any subject, or even potential manuscripts for review and comment. Comserve also has a new service called CommJobs which has the capacity to distribute an announcement of a position, world wide, in 24 hours (Comserve, 1989).

Other potential uses of the electronic data base are the storage of entire journals which are available in electronic form only. While the possibility of electronic journals exist Richard M. Dougherty (1989) of the University of Michigan School of Information and Library Studies does not believe the electronic journal will constitute a major influence in the near future. He maintains the economics of production and distribution are not competitive with existing formats (p. A52). The discussion of such a possibility was the main concern of a March, 1989 conference at Syracuse University called "Impact of Desktop Publishing on University Life". Speakers at the conference addressed such issues as the potential for improving the review process, the increased number of accepted submissions, the increased collegiality among scholars, the audiences for electronic journals, quality control, and the possibility of limiting desktop publishing (DeLoughry, 1989).

However, one should not be deluded into thinking these materials are all you might be missing if you don't have access to such data bases as comserve via BITNET type networks. The federal government is considering putting much of the information gathered using ta dollars into electronic form only. Such information is in the form of "statistical data gathered from the population, agricultural, or economic Census, financial data from the Commerce or Treasury Departments, Congressional bills and laws, federal regulations, scientific reports issued by agencies such as NASA or the Department of Energy, and so forth" (Gapen, Cline, Getz, Loup, and von Wahlde, 1987, p. ii). Through the extensive efforts of the American Library Association the Governmental Printing Office has been temporarily persuaded to abandon its plans to make the data available only in electronic form (ALA< 1988, p.5)

At this point it should be safe to assume that there is a great potential for the electronic storage of a wide variety of types of

information. Without the necessary skills, hardware, software, equipment, memberships, and funds you may find yourself and your students being relegated to a second class status in today's marketplace of ideas and knowledge.

It now remains to examine what the possible impact of being denied access to the above information. Brady (1989, p. 6) discusses the relationship between the availability of the computer and teaching. When students don't have ready access to the computer via the computer lab or personal purchase instructors reconsider how they will teach their classes and what assignments they can make. When the university budget calls for a 5 to 10 percent increase and the university policy mitigates against computer lab fees the institution is running the risk of falling behind the Joneses the Iowans, Ohioans, and the Michiganders. Brady observes that $2,000 for a decent computer is "a steal for those who can afford it but what about those who don't have that kind of money? Are we becoming a campus of computer haves and have-nots? Are the students fortunate enough to own computers getting an unfair advantage" (p. 6)?

The same question can be asked of the teacher researcher. If the researcher, the department, or the school does not have access to the necessary equipment, networks, and therefore appropriate data bases can researcher be expected to either keep abreast of the field, make contributions to the field, meet tenure and promotion requirements, or even find better employment elsewhere. Along the same line can the have-not institution expect to hire well qualified faculty who have big computer expectations? If the university decides to reallocate existing funds to increase computer access what programs/accounts will be cut, athletics, scholarships, salaries, support staff, library, travel, equipment, supplies, or in some cases entire academic programs? Should any of the above cuts appear in the offing the inevitable and appropriate cry of the ethics and rightness of such a decision is bound to resound across the campus.

What then can be done to alleviate the potential computer crisis? Charp (1989) provides the basis for the answer to the ethical problems involved in achieving access to electronic information. She maintains we must remember:

> *The skills necessary for the user to acquire, understand and effectively apply the technology of networking and telecommunications must not be underestimated.
> *If the sharing of information is to continue to grow, the telecommunication industry must respond quickly to demand.
> *The opportunity to share information and resources should be universally available.
> *We must strive to bring an understanding of the basic principles and capabilities of telecommunications out of the "buzzword phase" and into the everyday environment.
> Vision, commitment and resources, both human and monetary, will always be essential. (p. 8)

Charp's analysis focuses on the acquisition and teaching of skills, the necessity to develop the telecommunications industry and the institutions' access to it, the universality of access, society's commitment to electronic information, and the constant need for money. Therefore, to implement the proposed solution institutions of higher education and governmental bodies at the local, state, and national levels must be prepared to provide meaningful training programs to all members of their relevant constituencies. The programs should be available to teachers, students, and the population in general.

The telecommunications industry must be supported and encouraged to make fiber optic lines affordable and accessible to all educational institutions in both the public and private sector. The nodes of access should be as common as the public library or the post office.

Society as a whole must make the eradication of any discrepancy in informational access a leading priority. When our society becomes committed to the principles articulated by Charp the ethical questions currently surrounding the accessing of electronic information will diminish. We will not be a society of informational haves and have-nots. The faculty and students at our institutions of learning will be on an equal footing for the development of their respective careers. And, with any luck I and perhaps you too, will be able to sleep a little better at night.

References

ALA Newsletter. (1988, May 31). p.5.

Barnsley, J. H. (1972). The social reality of ethics: The comparative Anaysis of moral codes. Boston: Routledge & Kegan Paul.

BITNET. (1988). Criteria for BITNET Membership. Princeton, NJ: EDUCOM.

BITNET. (1988). Procedures for joining BITNET. Princeton, NJ: EDUCOM.

Brady, B. (1989, April). A Computer in every Backpack? Update. Duluth, MN: University of Minnesota, p. 6.

Charp, S. (1989, April). Editorial. T.H.E. Journal. p. 8.

Comserve. (1989, February). Comserve's commjobs service. Fact Sheet #3. Troy, NY: Rensselaer Polytechnic Institute.

Davis, N.K. (1900). Elements of Ethics. Boston: Silver, Burdett & Company

DeLoughry, T. J. (1989, March 22). Scholarly Journals in electronic form seen as means to speed pace of publication and promote dialogue. The Chronicle of Higher Education. pp. A11, A16.

Dougherty, R. M. (1989, April 12). To meet the crisis in Journal Costs, Universities must reassert their role in Scholarly Publishing. The Chronicle of Higher Education. p. A52.

Gapen, D. K., Cline, N., Getz, M., Loup, J., von Wahlde, B. (1987). Technology & U.S. Government Information Policies: Catalysts for new partnerships. Washington, D.C.: Association of Research Libraries.

Patterson, C. H. (1949). Moral Standards: An Introduction to Ethics, New York: The Ronald Press Company.

Stephen, T. & Harrison, T.M. (1987). Comserve User's Guide; Version 2.0. Troy, NY: Rensselaer Polytechnic Institute.